

Parameter	S1:CC, S2:CC, S3:CC, IS1:CC, IS2:CC
STAGE 1	STAGE 1
stage length [m]	31.4
dry mass [kg]	4962
filled propellant [kg]	95582
unuseable propellant [kg]	912
vacuum lsp [s]	322
vacuum thrust [kN]	1547
sea level thrust at takeoff [kN]	1365
engine nozzle exit area [m^2]	1.80
wall thickness [mm]	1.90
sigma [-]	0.0077
tank pressure [bara]	7.0
interstage mass [kg]	182
interstage thickness [mm]	4.6
STAGE 2	STAGE 2
stage length [m]	6.7
dry mass [kg]	1049
filled propellant [kg]	11090
unuseable propellant [kg]	65
vacuum lsp [s]	349
vacuum thrust [kN]	97
engine nozzle exit area [m^2]	1.09
wall thickness [mm]	1.90
sigma [-]	0.0154
tank pressure [bara]	7.0
interstage mass [kg]	36
interstage thickness [mm]	1.5
STAGE 3	STAGE 3
stage length [m]	1.7
fairing length [m]	4.3
dry mass [kg]	327
filled propellant [kg]	480
unusable propellant [kg]	8
vacuum lsp [s]	305
vacuum thrust [kN]	1.6
engine nozzle exit area [m^2]	0.067
aspect ratio whole rocket [-]	19.7
payload mass [kg]	2768.82